EXHIBIT C

Smith Economics Group, Ltd.

A Division of Corporate Financial Group **
Economics / Finance / Litigation Support

Stan V. Smith, Ph.D.
President

August 3, 2018

Mr. John M. Eubanks Motley Rice 28 Bridgeside Blvd. Mt. Pleasant, SC 29464

Re: Casazza

Dear Mr. Eubanks:

You have asked me to calculate the value of certain losses subsequent to the death of John Casazza. These losses are: (1) the loss of wages and employee benefits; (2) the loss of household/family services, including (a) the loss of housekeeping and household management services; (b) the loss of the advice, counsel, guidance, instruction and training services sustained by Mr. Casazza's surviving family; (c) the loss of accompaniment services sustained by Mr. Casazza's surviving family; (3) the loss of the value of life ("LVL"), also known as loss of enjoyment of life; (4) the loss of the society or relationship sustained by Mr. Casazza's surviving family; and (5) solatium.

OUALIFICATIONS AND EXPERIENCE

I am President of Smith Economics Group, Ltd., headquartered in Chicago, IL, which provides economic and financial consulting nationwide. I have worked as an economic and financial consultant since 1974, after completing a Research Internship at the Federal Reserve, Board of Governors, in Washington, D.C. My curriculum vitae lists all my publications in the last 10 years and beyond.

I received my Bachelor's Degree from Cornell University. I received a Master's Degree and my Ph.D. in Economics from the University of Chicago; Gary S. Becker, Nobel Laureate 1992, was my Ph.D. thesis advisor. The University of Chicago is one of the world's preeminent institutions for the study of economics, and the home of renowned research in the law and economics movement.

As President of Smith Economics, I have performed economic analyses in a great variety of engagements, including damages analysis in personal injury and wrongful death cases, business valuation, financial analysis, antitrust, contract losses, a wide range of class action matters, employment discrimination, defamation, and intellectual property valuations including evaluations of reasonable royalty.

I have more than 40 years of experience in the field of economics. I am a member of various economic associations and served for three years as Vice President of the National Association of Forensic Economics (NAFE) which is the principal association in the field. I was also on the Board of Editors of the peer-reviewed journal, the Journal of Forensic Economics, for over a decade; I have also published scholarly articles in this journal. The JFE is the leading academic journal in the field of Forensic Economics.

I am the creator and founder of Ibbotson Associates' Stock, Bonds, Bills, and Inflation (SBBI) Yearbook, Quarterly, Monthly, and SBBI/PC Services. SBBI is currently published by Duff & Phelps and is also available on various Morningstar, Inc. software platforms. SBBI is widely relied upon and regarded as the most accepted and scholarly reference by the academic, actuarial and investment community, and in courts of law. The SBBI series, which acknowledges my "invaluable role" as having "originated the idea" while Managing Director at Ibbotson Associates, is generally regarded by academics in the field of finance as the most widely accepted source of statistics on the rates of return on investment securities.

I wrote the first textbook on Forensic Economic Damages that has been used in university courses in various states; as an adjunct professor, I created and taught the first course in Forensic Economics nationwide, at DePaul University in Chicago. I have performed economic analysis in many thousands of cases in almost every state since the early 1980s.

BACKGROUND

John Casazza was a 38.1-year-old, Caucasian, married male, who was born on ______, and died on September 11, 2001. Mr. Casazza's remaining life expectancy is estimated at 40.6 years. This data is from the National Center for Health Statistics, <u>United States Life Tables</u>, 2014, Vol. 66, No. 4, National Vital Statistics Reports, 2017. I assume an estimated trial or resolution date of January 1, 2019.

In order to perform this evaluation, I have reviewed the following materials: (1) the report by Dr. Matityahu Marcus from June 2002; and (2) the case information form.

My methodology for estimating the losses, which is explained below, is generally based on past wage growth, interest rates, and consumer prices, as well as studies regarding the value of life. The effective net discount rate using statistically average wage growth rates and statistically average discount rates is 0.25 percent.

My estimate of the real wage growth rate is 1.00 percent per year. This growth rate is based on Business Sector, Hourly Compensation growth data from the Major Sector Productivity and Costs Index found at the U.S. Bureau of Labor Statistics website at www.bls.gov/data/home.htm, Series ID: PRS84006103, for the real increase in wages primarily for the last 20 years.

My estimate of the real discount rate is 1.25 percent per year. This discount rate is based on the rate of return on short-term U.S. Treasury investments. The data is from the statistical series <u>H.15 Selected Interest Rates</u>, published by the Board of Governors of the Federal Reserve System found at www.federalreserve.gov. This data is also published in the <a href="mailto:Economic Report of the President Table for "Bond yields and interest rates" for the real return on U.S. Treasury investments primarily for the last 20 years.

Estimates of real growth and discount rates are net of inflation based on the Consumer Price Index (CPI-U), published in monthly issues of the U.S. Bureau of Labor Statistics, CPI Detailed Report (Washington, D.C.: U.S. Government Printing Office) and available at the U.S. Bureau of Labor Statistics website at www.bls.gov/data/home.htm, Series ID: CUUR0000SAO. The rate of inflation for the past 20 years has been 2.14 percent.

I. LOSS OF WAGES AND EMPLOYEE BENEFITS - Annual Employment

Tables 1 through 9 show the loss of wages and benefits. Based on the report by Dr. Matityahu Marcus from June 2002, Mr. Casazza was Senior Vice President of the Repo Desk at Cantor Fitzgerald Securities at the time of his death. Mr. Casazza had been in this position for eight year, and he managed and traded an \$8 billion to \$10 billion matched book with an emphasis on "specials" business. Mr. Casazza worked closely with the New York sales team and the offices in London and Tokyo, and he also supervised two junior traders. Prior to working for Cantor Fitzgerald, he had a total of ten years of experience in trading and management at other large institutional trading firms. Mr. Casazza had an Associate's degree and was working towards a Bachelor's degree from St. Peters College. He held a NASD series 7 General Securities Representative license.

According to Dr. Marcus's report, Mr. Casazza earned \$431,874 in 1998, \$406,867 in 1999, and \$174,137 in 2000, and his earnings projected to \$392,006 in 2001. Additionally Mr. Casazza had partnership earnings from Cantor Fitzgerald of \$52,704 in 1998, \$48,389 in 1999, and \$84,750 in 2000. It is my understanding that in 2000, Mr. Casazza faced some extraordinary family difficulties that required him to assist his brother and sister in overcoming serious crises. It is my understanding that these unusual family crises precluded him from devoting all the

necessary effort and time to his trading activities, which impacted his regular earnings but not his partnership earnings. Mr. Casazza's earnings from 1998 and 1999 and projected earnings from 2001 average \$410,249, and his partnership income from 1998 through 2000 average \$61,948, resulting in total earnings of \$472,197.

The wage estimate is illustrated at Mr. Casazza's total earnings of \$472,197 based on his average wages of \$410,249 from 1998, 1999 and 2001 and his average partnership income of \$61,948 from 1998 through 2000. Wages are grown at national average growth of 2.09 percent in 2002, 5.28 percent in 2003, 4.40 percent in 2004, 3.03 percent in 2005, 3.90 percent in 2006, 4.03 percent in 2007, 2.97 percent in 2008, 1.22 percent in 2009, 1.23 percent in 2010, 0.50 percent in 2011, 5.90 percent in 2012, zero percent in 2013, 2.73 percent in 2014, 3.08 percent in 2015, zero percent in 2016, and 2.49 percent in 2017. Wages are grown at estimated nominal wage growth of 3.0 percent in 2018 and 2019 and 1.0 percent real wage growth thereafter.

Employee benefit estimates are based on data from the U.S. Department of Labor, Bureau of Labor Statistics, Employer Cost of Employee Compensation - December 2017, 2018, found at www.bls.gov/ect. I have assumed that employee benefits grow at the same rate as wages and are discounted to present value at the same discount rate. Since these tables assume annual work, I do not include employee benefits relating to unemployment, injury, illness or disability. Based on the benefits for management, professional and related occupations, retirement benefits are illustrated at 8.9 percent of wages, and health and life insurance benefits are illustrated at \$4.65 per hour, which projects to \$9,672 annually in year 2017 dollars. Social Security benefits are illustrated at 6.2 percent of the 2017 Social Security maximum earnings of \$127,200, which is \$7,886. Based on these assumptions, benefits are estimated at 11.3 percent of wages.

Personal consumption is an offset of the income. I use a personal consumption offset based on a study by Ruble, Patton, and Nelson, "Patton-Nelson Personal Consumption Tables 2011-12," Journal of Legal Economics, Vol. 21, No. 1, 2014, pp. 41-55, based on data from the U.S. Department of Labor, Bureau of Labor Statistics, "Consumer Expenditure Survey, 2011-12," Washington DC, 2012, personal consumption is illustrated at 10.1 percent through 2012 for a 3 person household, and at 12.6 percent thereafter for a 2 person household.

I assume annual employment each year and show the accumulation through life expectancy. While these tables are calculated through the end of life expectancy, the losses from working through any age can be read off the table.

Based on the above assumptions, my opinion of the wage loss is \$27,194,171 ➤ Table 9; this figure assumes work to age 78.7, but the ability to work through any assumed age may be read from Table 9; for example, the loss to age 67 is \$19,270,667.

II. LOSS OF HOUSEHOLD/FAMILY SERVICES

The following sections estimate the value of household/family services provided to John Casazza's wife and son. These services do not include loss of love, care, or affection, etc., but are the tangible services, valued as if they were provided by a person unknown to the household. A discussion of these services can be found in the Household Services Valuation Appendix. The hourly value of these services grows at the same rate as the wage growth rate discussed above.

II(A). LOSS OF HOUSEHOLD/FAMILY HOUSEKEEPING AND HOUSEHOLD MANAGEMENT SERVICES

Tables 10 through 12 show the pecuniary loss of tangible housekeeping chores and household management services. The number of hours of housekeeping and household management services for a married, working male is illustrated at 12.99 hours per week for minor children in the home through 2012 and 13.85 hours per week for no minor children in the home through 2030, and for a married, retired male at 22.52 hours per week for ages 62 to 74 through 2038 and 18.80 hours per week for ages 75 and over thereafter. This data is based on the American Time Use Survey published by the Bureau of Labor Statistics, www.bls.gov/tus, usefully summarized in a publication by Expectancy Data, The Dollar Value of A Day: 2016 Dollar Valuation, Shawnee Mission, KS, 2017.

The hourly value of the housekeeping and household management services is based on the mean hourly earnings of carpenters; maintenance and repair workers; painters; child care workers; waiters and waitresses; private household cooks; laundry and drycleaning workers; maids and housekeeping cleaners; landscaping and groundskeeping workers; bookkeeping, accounting and auditing clerks; and taxi drivers and chauffeurs, which is \$16.19 per hour in year 2017 dollars. This wage data is based on information from the U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2017 National Occupational Employment and Wage Statistics found at www.bls.gov/ces. This figure is corroborated by the average hourly values published by Expectancy Data, The Dollar Value of A Day: 2016 Dollar Valuation, Shawnee Mission, KS, 2017, which is also based on the BLS Occupational Employment Statistics.

I assess such services at their estimated market value which includes a conservative estimate of 50 percent hourly non-wage component reasonably charged by agencies or free-lance individuals who supply such services on a part-time basis, and who are responsible for advertising, hiring and vetting, training, insuring and bonding the part-time service provider, and who are also responsible for pay-related costs such as social security contributions, etc. If a person were to hire a free-lance employee directly instead of going through an agency, then he or she would have to take on the responsibility for all the non-wage costs that the agency would otherwise incur and then charge for. The money the person would pay directly in wages would be only a portion of the total costs. The total costs would include those items discussed above that the agency would otherwise incur.

Adding the non-wage component to the hourly wage is consistent with labor market theory and competitive market behavior. Peerreviewed economic research supports this theory and shows that the non-wage costs can average up to 300 percent for the wage. See, for example, Cushing, Matthew J. and David I. Rosenbaum, "Valuing Household Services: A New Look at the Replacement Cost Approach, " Journal of Legal Economics, Vol 19, No. 1, 2012, pp. 37-60, wherein the authors found that non-wage costs exceed wage costs by 167 percent. This is more than triple the 50 percent non-wage costs amount I use, discussed above. Also see Smith, David A., Stan V. Smith, and Stephanie R. Uhl, "Estimating the Value of Family Household Management Services: Approaches and Markups, Forensic Rehabilitation & Economics, Vol 3, No. 2, 2010, pp. 85-94. According to this research, the statistical probability is 99 percent that the non-wage costs exceed 250 percent of the wage cost. The use of only a 50 percent non-wage cost makes my estimate very conservative, and it far more than compensates for two possible variations: variations in the national wage depending on locality, and variations in different types of services actually performed in the household. Thus even if one or more of the different types of services are not performed, and even if the services are provided in low wage areas, my use of the low, 50 percent non-wage costs more than compensates for these factors.

According to Merry Maids, a national home cleaning service agency, the charges for their services within the largest 100 Metropolitan Statistical Areas with populations of 500,000 and up range from \$40 to \$65 per hour, averaging \$49 per hour, in 2012. This hourly rate reflects non-wage costs of 250 percent of wages, and after adjusting for market factors, is four times the non-wage costs figure that I use, resulting in an hourly rate of more than double the rate that I use. Thus my use of only a 50 percent addition for non-wage costs is, in fact, very conservative.

Based on these assumptions, and John Casazza's life expectancy of 78.7 years, my opinion of the loss of the value of housekeeping and household management services is \$572,771 ▶ Table 12.

II(B). LOSS OF HOUSEHOLD/FAMILY ADVICE, COUNSEL, GUIDANCE, INSTRUCTION AND TRAINING SERVICES

Tables 13 through 18 show the pecuniary loss of advice, counsel, guidance, instruction and training services sustained by Mr. Casazza's wife and son using the estimated market-based valuation cost method. Valuing the tangible, economic loss of household family services beyond the physical housekeeping chores is wellrecognized in the economic literature and in caselaw. See, for example, Frank D. Tinari, "Household Services: Toward a More Comprehensive Measure, " Journal of Forensic Economics, Vol. 11, No. 3, Fall 1998, pp. 253-265, and Michigan Central v. Vreeland discussed in the Household Services Valuation Appendix. The tangible loss of advice, counsel, and guidance services is also discussed by Frank D. Tinari and Kristin Kucsma in Gerald D. Martin's Determining Economic Damages, James Publishing Group, Santa Ana, CA, 2009. Dr. Tinari and Ms. Kucsma state that advice, counsel, and guidance services are "the provision of helpful opinion, advice and information to ones's spouse, children, and elderly parents, as the need arises, in the areas of family problems, medical concerns, schooling, careers, finances, personal relationships, etc.. "

The hourly value of the loss is based on the mean hourly earnings of educational, vocational, and school counselors; marriage and family therapists; child, family and school social workers; social and human service assistants; clergy; directors of religious activities and education; coaches; elementary school teachers; and personal financial advisors, which is \$27.79 per hour in year 2017 dollars. This wage data is based on information from the U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2017 National Occupational Employment and Wage Statistics found at www.bls.gov/oes.

I assess such services at their estimated market value which includes a conservative estimate of 50 percent hourly non-wage component reasonably charged by agencies or free-lance individuals who supply such services on a part-time basis, and who are responsible for advertising, hiring and vetting, training, insuring and bonding the part-time service provider, and who are also responsible for pay-related costs such as the employer's share of social security contributions, etc. If a person were to hire a free-lance employee directly instead of going through an agency, then he or she would have to take on the responsibility for all the non-wage costs that the agency would otherwise incur and then charge for. The money the person would

pay directly in wages would be only a portion of the total costs. The total costs would include those items discussed above that the agency would otherwise incur.

Adding the non-wage component to the hourly wage is consistent with labor market theory and competitive market behavior. Peerreviewed economic research supports this theory and shows that the non-wage costs can average up to 300 percent for the wage. See, for example, Cushing, Matthew J. and David I. Rosenbaum, "Valuing Household Services: A New Look at the Replacement Cost Approach, " Journal of Legal Economics, Vol 19, No. 1, 2012, pp. 37-60, wherein the authors found that non-wage costs exceed wage costs by 167 percent. This is more than triple the 50 percent non-wage costs amount I use, discussed above. Also see Smith, David A., Stan V. Smith, and Stephanie R. Uhl, "Estimating the Value of Family Household Management Services: Approaches and Markups," Forensic Rehabilitation & Economics, Vol 3, No. 2, 2010, pp. 85-94. According to this research, the statistical probability is 99 percent that the non-wage costs exceed 250 percent of the wage cost. The use of only a 50 percent non-wage cost makes my estimate very conservative, and it far more than compensates for two possible variations: variations in the national wage depending on locality, and variations in different types of services actually performed in the household. Thus even if one or more of the different types of services are not performed, and even if the services are provided in low wage areas, my use of the low, 50 percent non-wage costs more than compensates for these factors.

According to Sylvan Learning Centers, a national home tutorial agency, charges for their services within the largest 100 Metropolitan Statistical Areas with populations of 500,000 and up range from \$45 to \$55 per hour, averaging \$50 per hour. This reflects non-wage costs of well over 100 percent of wages, and is more than double the non-wage costs figure that I use, resulting in an hourly rate 40 percent higher than the rate I use. Thus my use of only a 50 percent addition for non-wage costs is, in fact, very conservative.

Based on a benchmark loss of 1.0 hours per day for Mr. Casazza's wife and 1.0 hours per day for Mr. Casazza's son through age 22 and 0.5 hours per day thereafter, my opinion of the loss of advice, counsel, guidance, instruction and training as a result of the death of John Casazza is as follows:

\$587,559 ▶ Table 15 for Patricia Casazza; \$362,562 ▶ Table 18 for John Casazza, Jr.

II(C). LOSS OF HOUSEHOLD/FAMILY ACCOMPANIMENT SERVICES

Tables 19 through 24 show the pecuniary loss of accompaniment services sustained by Mr. Casazza's wife and son using the estimated market-based valuation cost method. Valuing the tangible economic loss of household family services beyond physical housekeeping chores is well-recognized in the economic literature and in caselaw. See, for example, Frank D. Tinari, "Household Services: Toward a More Comprehensive Measure," Journal of Forensic Economics, Vol. 11, No. 3, Fall 1998, pp. 253-265, and Michigan Central v. Vreeland discussed in the Household Services Valuation Appendix. The tangible economic loss of accompaniment services is also discussed by Frank D. Tinari, Ph.D., in a sub-section of chapter 6 of Gerald D. Martin's Determining Economic Damages, James Publishing Group, Santa Ana, CA, 2012, which states accompaniment does "not include consortium, intimate relations, love, and affection." Rather such accompaniment services "are more akin to those provided by a mere acquaintance" with whom one might "attend a movie, play cards, or take a stroll." Accompaniment does not require "any particular physical work activity or intimacy." Accompaniment is what can be provided by a hired home health aide or an "adult sitter."

The hourly value of the loss of accompaniment services is based on the mean hourly earnings of orderlies and attendants; home health aides; and personal and home care aides, which is \$12.33 per hour in year 2017 dollars. This wage data is based on information from the U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2017 National Occupational Employment and Wage Statistics found at www.bls.gov/oes.

I assess such services at their estimated market value which includes a conservative estimate of 50 percent hourly non-wage component reasonably charged by agencies or free-lance individual who supply such services on a part-time basis, and who are responsible for advertising, hiring and vetting, training, insuring and bonding the part-time service provider, and who are also responsible for pay-related costs such as the employer's share of social security contributions, etc. If a person were to hire a free-lance employee directly instead of going through an agency, then he or she would have to take on the responsibility for all the non-wage costs that the agency would otherwise incur and then charge for. The money the person would pay directly in wages would be only a portion of the total costs. The total costs would include those items discussed above that the agency would otherwise incur.

Adding the non-wage component to the hourly wage is consistent with labor market theory and competitive market behavior. Peer-reviewed economic research supports this theory and shows that

the non-wage costs can average up to 300 percent for the wage. See, for example, Cushing, Matthew J. and David I. Rosenbaum, "Valuing Household Services: A New Look at the Replacement Cost Approach, " Journal of Legal Edonomics, Vol 19, No. 1, 2012, pp. 37-60, wherein the authors found that non-wage costs exceed wage costs by 167 percent. This is more than triple the 50 percent non-wage costs amount I use, discussed above. Also see Smith, David A., Stan V. Smith, and Stephanie R. Uhl, "Estimating the Value of Family Household Management Services: Approaches and Markups," Forensic Rehabilitation & Economics, Vol 3, No. 2, 2010, pp. 85-94. According to this research, the statistical probability is 99 percent that the non-wage costs exceed 250 percent of the wage cost. The use of only a 50 percent non-wage cost makes my estimate very conservative, and it far more than compensates for variations in the national wage depending on locality. Thus even if the services are provided in low wage areas, my use of the low, 50 percent non-wage costs more than compensates for this factor,

According to Visiting Angels, a national companion care agency, charges for their services within the largest 100 Metropolitan Statistical Areas with populations of 500,000 and up range from \$17 to \$25 per hour, averaging \$21 per hour. This reflects non-wage costs of approximately 100 percent of wages, and is approximately double the non-wage costs figure that I use, resulting in an hourly rate of more than 25 percent higher than the rate that I use. Thus my use of only a 50 percent addition for non-wage costs is, in fact, very conservative.

Based on a benchmark loss of 3.0 hours per day for Mr. Casazza's wife and 2.0 hours per day for Mr. Casazza's son through age 22 and 1.0 hours per day thereafter, my opinion of the loss of accompaniment as a result of the death of John Casazza is as follows:

\$781,960 ► Table 21 for Patricia Casazza; \$321,676 ► Table 24 for John Casazza, Jr.

III. LOSS OF VALUE OF LIFE

Tables 25 through 27 show the loss of the value of life. Economists have long agreed that life is valued at more than the lost earnings capacity. My estimate of the value of life is based on many economic studies on what we, as a contemporary society, actually pay to preserve the ability to lead a normal life. The studies examine incremental pay for risky occupations as well as a multitude of data regarding expenditure for life savings by individuals, industry, and state and federal agencies. Based on the average value of a statistical life and life expectancy of 78.7 years, my opinion of the loss of the value of life for John Casazza is \$4,966,841 ▶ Table 27.

My estimate of the value of life is consistent with estimates published in other studies that examine and review the broad spectrum of economic literature on the value of life. Among these is "The Plausible Range for the Value of Life," Journal of Forensic Economics, Vol. 3, No. 3, Fall 1990, pp. 17-39, by T. R. Miller. This study reviews 67 different estimates of the value of life published by economists in peer-reviewed academic journals. The Miller results, in most instances, show the value of life to range from approximately \$1.6 million to \$2.9 million dollars in year 1988 after-tax dollars, with a mean of approximately \$2.2 million dollars. In "The Value of Life: Estimates with Risks by Occupation and Industry, " Economic Inquiry, Vol. 42, No. 1, May 2003, pp. 29-48, Professor W. K. Viscusi estimates the value of life to be approximately \$4.7 million dollars in year 2000 dollars. An early seminal paper on the value of life was written by Richard Thaler and Sherwin Rosen, "The Value of Saving a Life: Evidence from the Labor Market." in N.E. Terlickyj (ed.), Household Production and Consumption. New York: Columbia University Press, 1975, pp. 265-300. The Meta-Analyses Appendix to this report reviews additional literature suggesting a value of life of approximately \$5.4 million in year 2008 dollars.

Because it is generally accepted by economists, the economic methodology for the valuation of life has been found to meet the Daubert and Frye standards by many courts, along with the Rules of Evidence in many states nationwide. My testimony on the value of life has been accepted in approximately 200 state and federal cases nationwide in approximately two-thirds of the states and two-thirds of the federal jurisdictions. Testimony has been accepted by U.S. district and appellate courts as well as in state circuit, appellate, and supreme courts. Proof of general acceptance and other standards is found in a discussion of the extensive references to the scientific economic peer-reviewed literature on the value of life listed in the Value of Life Appendix to this report.

The underlying, academic, peer-reviewed studies fall into two general groups: (1) consumer behavior and purchases of safety devices; (2) wage risk premiums to workers; in addition, there is a third group of studies consisting of cost-benefit analyses of regulations. For example, one consumer safety study analyzes the costs of smoke detectors and the lifesaving reduction associated with them. One wage premium study examines the differential rates of pay for dangerous occupations with a risk of death on the job. Just as workers receive shift premiums for undesirable work hours, workers also receive a higher rate of pay to accept a increased risk of death on the job. A study of government regulation examines the lifesaving resulting from the installation of smoke stack scrubbers at high-sulphur, coalburning power plants. As a hypothetical example of the methodology, assume that a safety device such as a carbon

monoxide detector costs \$46 and results in lowering a person's risk of premature death by one chance in 100,000. The cost per life saved is obtained by dividing \$46 by the one in 100,000 probability, yielding \$4,600,000. Overall, based on the peer-reviewed economic literature, I estimate the central tendency of the range of the economic studies to be approximately \$4.8 million in year 2018 dollars.

IV. LOSS OF SOCIETY OR RELATIONSHIP

Tables 28 through 33 show the loss of society or relationship sustained by Mr. Casazza's wife and son. The value of the loss of society or relationship by family members with the injured can be based on a measure of the value of preserving the ability to live a normal life. This is discussed in the article, "The Relevance of Willingness-To-Pay Estimates of the Value of a Statistical Life in Determining Wrongful Death Awards, " Journal of Forensic Economics, Vol. 3, No. 3, Fall 1990, pp. 75-89, by L. G. Chestnut and D. M. Violette. It is also discussed in "The Value of Life to Close Family Members: Calculating the Loss of Society and Companionship, " The New Hedonics Primer for Economists and Attorneys, Second Edition, Edited by Thomas R. Ireland and John O. Ward, Lawyers & Judges Publishing Co., 1997, pp. 377-384, by Stan V. Smith, and republished in "The Value of Life to Close Family Members: Calculating the Loss of Society and Companionship, " American Rehabilitation Economics Association 1997 Monograph, pp. 10-16.

Based on a benchmark loss of 35 percent for each Mr. Casazza's wife and 20 percent for Mr. Casazza's son, my opinion of the loss of relationship as a result of the death of John Casazza is as follows:

\$1,856,847 ➤ Table 30 for Patricia Casazza; \$1,470,184 ➤ Table 33 for John Casazza, Jr.

V. SOLATIUM

It is my understanding that solatium damages are awarded based on a matrix produced by the court.

Other factors may be weighed to determine if these estimated losses for John Casazza should be adjusted because of special qualities or circumstances that economists do not as yet have a methodology for analysis.

In each set of tables, the estimated losses are calculated from September 11, 2001 through an assumed trial or resolution date of

January 1, 2019, and from that date thereafter. The last table in each set accumulates the past and future estimated losses. These estimates are provided as a tool, an aid, and a guide for evaluation by others.

All opinions expressed in this report are clearly labeled as such. They are rendered in accordance with generally accepted standards within the field of economics and are expressed to a reasonable degree of economic certainty. Estimates, assumptions, illustrations and the use of benchmarks, which are not opinions, but which can be viewed as hypothetical in nature, are also clearly disclosed and identified herein.

In my opinion, it is reasonable for experts in the field of economics and finance to rely on the materials and information I reviewed in this case for the formulation of my substantive opinions herein.

If additional information is provided to me, which could alter my opinions, I may incorporate any such information into an update, revision, addendum, or supplement of the opinions expressed in this report.

If you have any questions, please do not hesitate to call me.

Sincerely,

Stan V. Smith, Ph.D.

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President

APPENDIX: HOUSEHOLD SERVICES VALUATION

Courts have long recognized claims for the value of tangible household family services as an element of damages in personal injury and wrongful death cases, as an aspect of the pecuniary loss in such cases. These services are those that are provided by the injured family member to himself or herself and to other family members, without charge or cost. Other family members who may receive such services can include spouses, children, parents or siblings; such family members do not necessarily have to reside in the same household to receive such services.

Economists and courts have also long recognized that an appropriate method in valuing such tangible services is to value their estimated market-based costs by examining costs paid in labor markets that provide generally comparable services for. Thus, economists can value the service by looking at market equivalents from which a pecuniary standard can be established. This approach is set forth in the 1913 U.S.Supreme Court Decision, Michigan Central Railroad Company v. Vreeland, 227 U.S. 59 (1913). So this method is a century old.

The Supreme Court's suggesting in valuing compensable services in the Vreeland decision is a standard that is not rigid, but actually rather general: "[The] pecuniary loss or damage must be one which can be measured by some standard... Compensation for such loss manifestly does not include damages by way of recompense for grief or wounded feelings." Michigan Central v. Vreeland.

Examples of lost household services that used to be performed by persons (whether fatally or non-fatally injured) can include physical chores such as mowing the lawn, painting the house, cleaning the windows, doing the laundry, washing and repairing the car, preparing the meals and doing the dishes, among others. For many decades economists have met the Supreme Court's general standard by using labor market equivalents for cooks, laundry workers, gardeners, maids, etc. in valuing the physical chores regarding housekeeping services.

Additionally, economists have recognized that tangible services to family members include services well beyond the physical housekeeping chores. For example, William G. Jungbauer and Mark J. Odegard, in Maximizing Recovery in FELA Wrongful Death Actions, in Assessing Family Loss in Wrongful Death Litigation: The Special Roles of Lost Services and Personal Consumption, Lawyers & Judges Publishing Co., 1999, pp. 284, indicate that a complete analysis of all services performed by family members includes much, much more than the physical housekeeping chores. Frank D. Tinari, in a peer-reviewed, scientific, economic journal article "Household Services: Toward a More Comprehensive Measure," Journal of Forensic Economics, Vol. 11, No. 3, Fall

1998, pp. 253-265, expresses the same view. Dr. Tinari has been a tenured Professor at Seton Hall University, and is a former president of the National Association of Forensic Economics. There has been no peer-reviewed critique of this article since it appeared.

Jungbauer and Odegard indicate that a person may have provided services of many other professions such as that of a chauffeur, driving other family members to appointments, or that of a security quard, especially regarding the injury to a male spouse, etc. Every family member acts as a companion to other family members. And it is common for family members to act as counselors for one another, typically providing advice and counsel on important personal, family, medical, financial, career or other issues. The marketplace can and does value such items of loss. If the person cannot provide these services, or does so at a reduced capacity or rate, there is a distinct and definite loss to the other family members. These losses have a definite and easily measurable pecuniary value. Vreeland requires only that a "reasonable expectation" of loss of services be proven and that such loss be valued by some standard, presumably a reasonably-based economic standard, to allow recovery.

The economic literature on recovery of loss of services discusses an estimated market-oriented valuation cost method to assess the pecuniary value of the loss of accompaniment services, as well as the value of advice, guidance and counsel services that family members provide to one another, within a broadly defined scope of family services. See, for example, Frank D. Tinari, "Household Services: Toward a More Comprehensive Measure, " <u>Journal of Forensic Economics</u>, Vol. 11, No. 3, Fall 1998, pp. 253-265.

Finally, according to Chief Justice Robert Wilentz of the Supreme Court of New Jersey, in <u>Green v. Bittner</u>, 85 NJ 1, 1980, pp. 12, accompaniment services, to be compensable, must be that which would have provided services substantially equivalent to those provided by the companions often hired today by the aged or infirm, or substantially equivalent to services provided by nurses or practical nurses; and its value must be confined to what the marketplace would pay a stranger with similar qualifications for performing such services.

In valuing the household services that are provided by family members to one another, beyond the physical housekeeping chores, both the U.S Supreme Court and the New Jersey Supreme Court discuss looking at labor markets for the equivalent value of such services. This methodology is identical to the traditional approach that economists have been using for over four decades in valuing the physical chores involved in housekeeping services. 5206

APPENDIX: VALUE OF LIFE

The economic methodology for the valuation of life has been found to meet the <u>Daubert</u> and <u>Frye</u> standards by many courts, along with the Rules of Evidence in many states nationwide. My testimony on the value of life has been accepted in approximately 200 state and federal cases nationwide in approximately two-thirds of the states and two-thirds of the federal jurisdictions. Testimony has been accepted by U.S. district and appellate courts as well as in state circuit, appellate, and supreme courts. The <u>Daubert</u> standard sets forth four criteria:

- 1. Testing of the theory and science
- 2. Peer Review
- 3. Known or potential rate of error
- 4. Generally accepted.

Testing of the theory and science has been accomplished over the past four decades, since the 1960s. Dozens of economists of high renown have published over a hundred articles in high quality, peer-reviewed economic journals measuring the value of life. The value of life theories are perhaps among the most well-tested in the field of economics, as evidenced by the enormous body of economic scientific literature that has been published in the field and is discussed below.

Peer Review of the concepts and methodology have been extraordinarily extensive. One excellent review of this extensive, peer-reviewed literature can be found in "The Value of Risks to Life and Health, " W. K. Viscusi, Journal of Economic Literature, Vol. 31, December 1993, pp. 1912-1946. A second is "The Value of a Statistical Life: A Critical Review of Market Estimates throughout the World." W. K. Viscusi and J. E. Aldy, Journal of Risk and Uncertainty, Vol. 27, No. 1, November 2002, pp. 5-76. Additional theoretical and empirical work by Viscusi, a leading researcher in the field, can be found in: "The Value of Life", W. K. Viscusi, John M. Olin Center for Law, Economics, and Business, Harvard Law School, Discussion Paper No. 517, June 2005. An additional peer-reviewed article discusses the application to forensic economics: "The Plausible Range for the Value of Life, " T. R. Miller, Journal of Forensic Economics, Vol. 3, No. 3, Fall 1990, pp. 17-39, which discusses the many dozens of articles published in other peer-reviewed economic journals on this topic. This concept is discussed in detail in "Willingness to Pay Comes of Age: Will the System Survive?" T. R. Miller, Northwestern University Law Review, Summer 1989, pp. 876-907, and "Hedonic Damages in Personal Injury and Wrongful Death

Litigation, "by Stan V. Smith in Gaughan and Thornton, eds., Litigation Economics, Contemporary Studies in Economic and Financial Analysis, Vol. 74, pp. 39-59, JAI Press, Greenwich, CT, 1993. Kenneth Arrow, a Nobel Laureate in economics, discusses this method for valuing life in "Invaluable Goods," Journal of Economic Literature, Vol. 35, No. 2, 1997, pp. 759. See the Meta-Analyses Appendix for an additional review of the literature.

The known or potential rate of error is well researched. All of these articles discuss the known or potential rate of error, well within the acceptable standard in the field of economics, generally using a 95% confidence rate for the statistical testing and acceptance of results. There are few areas in the field of economics where the known or potential rate of error has been as well-accepted and subject to more extensive investigation.

General Acceptance of the concepts and methodology on the value of life in the field of economics is extensive. This methodology is and has been generally accepted in the field of economics for many years. Indeed, according to the prestigious and highly-regarded research institute, The Rand Corporation, by 1988, the peer-reviewed scientific methods for estimating the value of life were well-accepted: "Most economists would agree that the willingness-to-pay methodology is the most conceptually appropriate criterion for establishing the value of life,"

Computing Economic loss in Cases of Wrongful Death, King and Smith, Rand Institute for Civil Justice, R-3549-ICJ, 1988.

While first discussed in cutting edge, peer-reviewed economic journals, additional proof of general acceptance is now indicated by the fact that this methodology is now taught in standard economics courses at the undergraduate and graduate level throughout hundreds of colleges and universities nationwide as well as the fact that it is taught and discussed in widelyaccepted textbooks in the field of law and economics: Economics, Sixth Edition, David C. Colander, McGraw-Hill Irwin, Boston, 2006, pp. 463-465; this introductory economics textbook is the third most widely used textbook in college courses nationwide. Hamermesh and Rees's The Economics of Work and Pay, Harper-Collins, 1993, Chapter 13, a standard advanced textbook in labor economics, also discusses the methodology for valuing life. Other textbooks discuss this topic as well. Richard Posner, Judge and former Chief Judge of the U.S. Court of Appeals for the highly regarded 7th Circuit and Senior Lecturer at the University of Chicago Law School, one of most prolific legal writers in America, details the Value of Life approach in his widely used textbooks: Economic Analysis of Law, 1986, Little Brown & Co., pp. 182-185 and Tort Law, 1982, Little Brown & Co., pp. 120-126.

As further evidence of general acceptance in the field, some surveys (albeit non-scientific) published in the field of

forensic economics show that hundreds of economists nationwide are now familiar with this methodology and are available to prepare (and critique) forensic economic value of life estimates. Indeed, some economists who indicate they will prepare such analysis for plaintiffs also are willing to critique such analysis for defendants, as I have done. That an economist is willing to critique a report does not indicate that he or she is opposed to the concept or the methodology, but merely available to assure that the plaintiff economist has employed proper techniques. The fact that there are economists who indicate they do not prepare estimates of value of life is again no indication that they oppose the methodology: many claim they are not familiar with the literature and untrained in this area. While some CPAs and others without a degree in economics have opposed these methods, such professionals do not have the requisite academic training and are unqualified to make such judgements. However, as in any field of economics, this area is not without any dissent. General acceptance does not mean universal acceptance.

Additional evidence of general acceptance in the field is found in the teaching of the concepts regarding the value of life. Forensic Economics is now taught as a special field in a number of institutions nationwide. I taught what is believed to be the first course ever presented in the field of Forensic Economics at DePaul University in Spring, 1990. My own book, Economic/Hedonic Damages, Anderson, 1990, and supplemental updates thereto, coauthored with Dr. Michael Brookshire, a Professor of Economics in West Virginia, has been used as a textbook in at least 5 colleges and universities nationwide in such courses in economics, and has a thorough discussion of the methodology. Toppino et. al., in "Forensic Economics in the Classroom," published in The Earnings Analyst, Journal of the American Rehabilitation Economics Association, Vol. 4, 2001, pp. 53-86, indicate that hedonic damages is one of 15 major topic areas taught in such courses.

Lastly, general acceptance is found by examining publications in the primary journal in the field of Forensic Economics, which is the peer-reviewed Journal of Forensic Economics, where there have been published many articles on the value of life. Some are cited above. Others include: "The Econometric Basis for Estimates of the Value of Life," W. K. Viscusi, Vol 3, No. 3, Fall 1990, pp. 61-70; "Hedonic Damages in the Courtroom Setting." Stan V. Smith, Vol. 3, No. 3, Fall 1990, pp. 41-49; "Issues Affecting the Calculated Value of Life," E. P. Berla, M. L. Brookshire and Stan V. Smith, Vol 3, No. 1, 1990, pp. 1-8; "Hedonic Damages and Personal Injury: A Conceptual Approach." G. R. Albrecht, Vol. 5., No. 2, Spring/Summer 1992, pp. 97-104; "The Application of the Hedonic Damages Concept to Wrongful and Personal Injury Litigation." G. R. Albrecht, Vol. 7, No. 2, Spring/Summer 1994, pp. 143-150; and also "A Review of the Monte Carlo Evidence Concerning Hedonic Value of Life Estimates," R. F.

Gilbert, Vol. 8, No. 2, Spring/Summer 1995, pp. 125-130. Professor Ike Mathur, while Chairman of the Department of Finance at Southern Illinois University wrote an article on how the value of life studies can be used to provide a basis for estimating the value of life per year in application to litigation. This article corroborates my approach: "Estimating Value of Life per Life Year." I. Mathur, <u>Journal of Forensic Economics</u>, Vol. 3, No. 3, 1990, pp. 95-96. As do many of the authors of applications of the value of life literature to litigation economics, Professor Mathur has frequently testified in court, and courts have admitted his testimony.

It is important to note that this methodology is endorsed and employed by the U. S. Government as the standard and recommended approach for use by all U. S. Agencies in valuing life for policy purposes, as mandated in current and past Presidential Executive Orders in effect since 1972, and as discussed in "Report to Congress on the Costs and Benefits of Federal Regulations, " Office of Management and Budget, 1998, and "Economic Analysis of Federal Regulations Under Executive Order 12866," Executive Office of the President, Office of Management and Budget, pp. 1-37, and "Report to the President on Executive Order No. 12866," Regulatory Planning and Review, May 1, 1994, Office of Information and Regulatory Affairs, Office of Management and Budget. Prior presidents signed similar orders as discussed in "Federal Agency Valuations of Human life," Administrative Conference of the United States, Report for Recommendation 88-7, 926 December 1988, pp. 368-408.

APPENDIX: META-ANALYSES AND VALUE OF LIFE RESULTS SINCE 2000

Below I list the principal systematic reviews (meta-analyses), since the year 2000, of the value of life literature, and the values of a statistical life that they recommend. In statistics, a meta-analysis combines the results of several studies that address a set of related research hypotheses. Meta-analysis increase the statistical power of studies by analyzing a group of studies and provide a more powerful and accurate data analysis than would result from analyzing each study alone. Based on those reviews, the Summary Table suggests a best estimate. The following table summarizes the studies and their findings.

These statistically based studies place the value between \$4.4 and \$7.5 million, with \$5.9 million in year 2005 dollars representing a conservative yet credible estimate of the average (and range midpoint) of the values of a statistical life published in the studies in year 2005 dollars. Net of human capital, a credible net value of life based on all these literature reviews to be \$4.8 million in year 2005 dollars, or \$5.4 million in year 2008 dollars.

The actual value that I use, \$4.1 million in year 2008 dollars (\$4.8 million in year 2018 dollars) is approximately 24 percent lower than a conservative average estimate based on the credible meta-analyses. This value was originally based on a review conducted in the late 1980s, averaging the results published by that time. I have increased that late 1980s value only by inflation over time, despite the fact a review of literature over the years since that time has put obvious upward pressure on the figure that I use.

VALUE OF STATISTICAL LIFE SUMMARY TABLE

Mean and range of value of statistical life estimates (in 2005 dollars) from the best meta-analyses and systematic reviews since 2000 and characteristics of those reviews.

Study	Formal Meta- Analysis?	Number of Values	Best Estimate (2005 Dollars)	Range	Context
Miller 2000	Yes	68 estimates	\$5.1M	\$4.5- \$6.2M	US estimate from all
Mrozek & Taylor 2002	Yes	203 estimates	\$4.4M	+ or -	Labor market
Viscusi & Aldy 2003	Yes	49 estimates	\$6.5M	\$5.1- \$9.6M	Labor market, US estimate from all
Kochi et al. 2006	Yes	234 estimates	\$6.0M	+ or - 44%	Labor market survey
Bellavance 2006 (published in 2009)	Yes	37 estimates	\$7.5M	+ or +	Labor market

Adapted from Ted R. Miller's paper "Hedonic Damages," <u>Journal of Forensic Economics</u>, Vol. 20, No. 2 (October 2008), pp. 137-153.

Miller (2000) started from the Miller 1989 JFE estimates and used statistical methods to adjust for differences between studies. It also added newer studies, primarily ones outside the United States. The authors specified the most appropriate study approach a priori, which allowed calculation of a best estimate from the statistical regression. Miller, Ted R, "Variations between Countries in Values of Statistical Life", <u>Journal of Transport Economics and Policy</u>, Vol. 34, No. 2 (May 2000), pp. 169-188.

Mrozek and Taylor (2002) searched intensively for studies of the value of life implied by wages paid for risky jobs. They coded all values from each study rather than a most appropriate estimate. A statistical analysis identified what factors accounted for the differences in values between studies. The authors specified the most appropriate study approach a priori, which allowed calculation of a best estimate from the statistical regression. Mrozek, Janusz R. and Laura O. Taylor, "What Determines the Value of Life? A Meta-Analysis", Journal of Policy Analysis and Management, Vol. 21, No. 2 (2002), pp. 253-270.

Viscusi and Aldy (2003) focused on values from labor market studies that they considered of high quality and that provided data on risk levels and other important explanatory variables. They used statistical methods to account for variations between studies and derive a best estimate. W.K. Viscusi and J.E. Aldy, "The Value of a Statistical Life: A Critical Review of Market Estimates Throughout the World", Journal of Risk and Uncertainty, Vol. 27, No. 1 (2003), pp. 5-76.

Kochi et al. (2006) searched intensively for studies of the value of life implied by wages and coded all values from each study rather than a most appropriate estimate. They did not filter study quality carefully. The best estimate was derived by statistical methods based on the distribution of the values within and across studies. Kochi, Ikuho, Bryan Hubbell, and Randall Kramer, "An Empirical Bayes Approach to Combining and Comparing Estimates of the Value of a Statistical Life for Environmental Policy Analysis", Environmental and Resource Economics, Vol. 34 (2006), pp. 385-406.

Bellavance et al. (2009) focused on values from labor market studies that they considered of high quality and that provided data on risk levels and other important explanatory variables. They used statistical methods to account for variations between studies and derive a best estimate. Bellavance, Francois, Georges Dionne, and Martin Lebeau, "The Value of a Statistical Life: A Meta-Analysis with a Mixed Effects Regression Model," Tournal of Health Economics, Vol. 28, Issue 2, (2009), pp. 444-464. 3A22

SUMMARY OF LOSSES FOR JOHN CASAZZA

TABLE ****	DESCRIPTION ************************************	ESTIMATE ******
9	LOSS OF WAGES & BENEFITS, NET OF PERSONAL CONSUMPTION Annual Employment to age 67	\$19,270,667
	HOUSEHOLD/FAMILY SERVICES	ਰ ਜ਼ _ੇ
12	LOSS OF HOUSEHOLD/FAMILY HOUSEKEEPING AND HOME MANAGEMENT SERVICES	\$ 572,771
	LOSS OF HOUSEHOLD/FAMILY GUIDANCE SERVICES	å F07 FF0
15 18	Patricia Casazza John Casazza, Jr.	\$ 587,559 \$ 362,562
	LOSS OF HOUSEHOLD/FAMILY ACCOMPANIMEN SERVICES	
21 24	Patricia Casazza John Casazza, Jr.	\$ 781,960 \$ 321,676
	LOSS OF ENJOYMENT OF LIFE	राज ्य श ्चर
27	LOSS OF VALUE OF LIFE	\$ 4,966,841
· ·	LOSS OF SOCIETY AND RELATIONSHIP	. .
30 33	LOSS OF RELATIONSHIP Patricia Casazza John Casazza, Jr.	\$ 1,856,847 \$ 1,470,184
	şəşəsəsəsəsəsəs SOLATIUM	, <u> </u>
	SOLATIUM	\$SEE MATRIX

The information on this Summary of Losses is intended to summarize losses under certain given assumptions. Please refer to the report and the tables for all the opinions.

Table 1

LOSS OF PAST WAGES

2001 - 2018

YEAR	AGE	WAGES	CUMULATE
****	***	*******	*****
2001	38	\$143,600	\$143,600
2002	39	482,061	625,661
2003	40	507,506	1,133,167
2004	41	529,841	1,663,008
2005	42	545,919	2,208,927
2006	43	567,223	2,776,150
2007	44	590,061	3,366,211
2008	45	607,576	3,973,787
2009	46	614,961	4,588,748
2010	47	622,497	5,211,245
2011	48	625,589	5,836,834
2012	49	662,480	6,499,314
2013	50	662,480	7,161,794
2014	51	680,565	7,842,359
2015	52	701,517	8,543,876
2016	53	701,517	9,245,393
2017	54	719,008	9,964,401
2018	55	740,578	\$10,704,979

JOHN CASAZZA \$10,704,979

Table 2

LOSS OF PAST EMPLOYEE BENEFITS

2001 - 2018

	EMPLOYEE	
AGE	BENEFITS	CUMULATE
***	*****	*****
38	\$16,227	\$16,227
39	54,473	70,700
40	57,348	128,048
41	59,872	187,920
42	61,689	249,609
43	64,096	313,705
44	66,677	380,382
45	68,656	449,038
46	69,491	518,529
47	70,342	588,871
48	70,692	659,563
49	74,860	734,423
50	74,860	809,283
51	76,904	886,187
52	79,271	965,458
53	79,271	1,044,729
54	81,248	1,125,977
55	83,685	\$1,209,662
	*** 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53	AGE BENEFITS *** ******** 38 \$16,227 39 54,473 40 57,348 41 59,872 42 61,689 43 64,096 44 66,677 45 68,656 46 69,491 47 70,342 48 70,692 49 74,860 50 74,860 51 76,904 52 79,271 53 79,271 54 81,248

JOHN CASAZZA \$1,209,662

Table 3

LOSS OF PAST PERSONAL CONSUMPTION
2001 - 2018

		PERSONAL	
YEAR	AGE	CONSUMPTION	CUMULATE
***	***	*******	*******
2001	38	-\$16,141	-\$16,141
2002	39	-54,184	-70,325
2003	40	-57,044	-127,369
2004	41	-59,554	-186,923
2005	42	-61,361	-248,284
2006	43	-63,756	-312,040
2007	44	-66,323	-378,363
2008	45	-68,292	-446,655
2009	46	-69,122	-515,777
2010	47	-69,969	-585,746
2011	48	-70,316	-656,062
2012	49	-74,463	-730,525
2013	50	-92,880	-823,405
2014	51	-95,415	-918,820
2015	52	-98,353	-1,017,173
2016	53	-98,353	-1,115,526
2017	54	-100,805	-1,216,331
2018	55	-103,829	-\$1,320,160

JOHN CASAZZA -\$1,320,160

Table 4

ECONOMIC LOSS TO DATE
2001 - 2018

			EMPLOYEE	PERSONAL		
YEAR	AGE	WAGES	BENEFITS	CONSUMPTION	TOTAL	CUMULATE
****	***	*****	*****	*****	*******	*****
2001	38	\$143,600	\$16,227	-\$16,141	\$143,686	\$143,686
2002	39	482,061	54,473	-54,184	482,350	626,036
2003	40	507,506	57,348	-57,044	507,810	1,133,846
2004	41	529,841	59,872	-59,554	530,159	1,664,005
2005	42	545,919	61,689	-61,361	546,247	2,210,252
2006	43	567,223	64,096	-63,756	567,563	2,777,815
2007	44	590,061	66,677	-66,323	590,415	3,368,230
2008	45	607,576	68,656	-68,292	607,940	3,976,170
2009	46	614,961	69,491	-69,122	615,330	4,591,500
2010	47	622,497	70,342	-69,969	622,870	5,214,370
2011	48	625,589	70,692	-70,316	625,965	5,840,335
2012	49	662,480	74,860	-74,463	662,877	6,503,212
2013	50	662,480	74,860	-92,880	644,460	7,147,672
2014	51	680,565	76,904	-95,415	662,054	7,809,726
2015	52	701,517	79,271	-98,353	682,435	8,492,161
2016	53	701,517	79,271	-98,353	682,435	9,174,596
2017	54	719,008	81,248	-100,805	699,451	9,874,047
2018	55	740,578	83,685	-103,829	720,434	\$10,594,481
		•				
JOHN	CASAZZA	\$10,704,979	\$1,209,662	-\$1,320,160	\$10,594,481	

Table 5

PRESENT VALUE OF FUTURE WAGES
2019 - 2042

			DISCOUNT	PRESENT	
YEAR	AGE	WAGES	FACTOR	VALUE	CUMULATE
****	***	*****	*****	*****	*****
2019	56	\$762,796	0.98765	\$753,375	\$753,375
2020	57	770,424	0.97546	751,518	1,504,893
2021	58	778,128	0.96342	749,664	2,254,557
2022	59	785,909	0.95152	747,808	3,002,365
2023	60	793,768	0.93978	745,967	3,748,332
2024	61	801,706	0.92817	744,119	4,492,451
2025	62	809,723	0.91672	742,289	5,234,740
2026	63	817,820	0.90540	740,454	5,975,194
2027	64	825,998	0.89422	738,624	6,713,818
2028	65	834,258	0.88318	736,800	7,450,618
2029	66	842,601	0.87228	734,984	8,185,602
2030	67	851,027	0.86151	733,168	8,918,770
2031	68	859,537	0.85087	731,354	9,650,124
2032	, 69	868,132	0.84037	729,552	10,379,676
2033	70	876,813	0.82999	727,746	11,107,422
2034	71	885,581	0.81975	725,955	11,833,377
2035	72	894,437	0.80963	724,163	12,557,540
2036	73	903,381	0.79963	722,371	13,279,911
2037	74	912,415	0.78976	720,589	14,000,500
2038	75	921,539	0.78001	718,810	14,719,310
2039	76	930,754	0.77038	717,034	15,436,344
2040	77	940,062	0.76087	715,265	16,151,609
2041	78	949,463	0.75147	713,493	16,865,102
2042	79	265,355	0.74888	198,719	\$17,063,821

\$17,063,821

Table 6

PRESENT VALUE OF FUTURE EMPLOYEE BENEFITS
2019 - 2042

		EMPLOYEE	DISCOUNT	PRESENT	
YEAR	AGE	BENEFITS	FACTOR	VALUE	CUMULATE
****	***	*****	*****	******	*****
2019	56	\$86,196	0.98765	\$85,131	\$85,131
2020	57	87,058	0.97546	84,922	170,053
2021	58	87,928	0.96342	84,712	254,765
2022	59	88,808	0.95152	84,503	339,268
2023	60	89,696	0.93978	84,295	423,563
2024	61	90,593	0.92817	84,086	507,649
2025	62	91,499	0.91672	83,879	591,528
2026	63	92,414	0.90540	83,672	675,200
2027	64	93,338	0.89422	83,465	758,665
2028	65	94,271	0.88318	83,258	841,923
2029	66	95,214	0.87228	83,053	924,976
2030	67	96,166	0.86151	82,848	1,007,824
2031	68	97,128	0.85087	82,643	1,090,467
2032	69	98,099	0.84037	82,439	1,172,906
2033	70	99,080	0.82999	82,235	1,255,141
2034	71	100,071	0.81975	82,033	1,337,174
2035	72	101,071	0.80963	81,830	1,419,004
2036	73	102,082	0.79963	81,628	1,500,632
2037	74	103,103	0.78976	81,427	1,582,059
2038	75	104,134	0.78001	81,226	1,663,285
2039	76	105,175	0.77038	81,025	1,744,310
2040	77	106,227	0.76087	80,825	1,825,135
2041	78	107,289	0.75147	80,624	1,905,759
2042	79	29,985	0.74888	22,455	\$1,928,214

\$1,928,214

Table 7

PRESENT VALUE OF FUTURE PERSONAL CONSUMPTION 2019 - 2042

		PERSONAL	DISCOUNT	PRESENT	
YEAR	AGE	CONSUMPTION	FACTOR	VALUE	CUMULATE
****	***	*****	*****	*****	*****
2019	56	-\$106,944	0.98765	-\$105,623	-\$105,623
2020	57	-108,013	0.97546	-105,362	-210,985
2021	58	-109,094	0.96342	-105,103	-316,088
2022	59	-110,184	0.95152	-104,842	-420,930
2023	60	-111,286	0.93978	-104,584	-525,514
2024	61	-112,399	0.92817	-104,325	-629,839
2025	62	-113,523	0.91672	-104,069	-733,908
2026	63	-114,658	0.90540	-103,811	-837,719
2027	64	-115,805	0.89422	-103,555	-941,274
2028	65	-116,963	0.88318	-103,299	-1,044,573
2029	66	-118,133	0.87228	-103,045	-1,147,618
2030	67	-119,314	0.86151	-102,790	-1,250,408
2031	68	-120,507	0.85087	-102,536	-1,352,944
2032	69	-121,712	0.84037	-102,283	-1,455,227
2033	70	-122,929	0.82999	-102,030	-1,557,257
2034	71	-124,158	0.81975	-101,779	-1,659,036
2035	72	-125,400	0.80963	-101,528	-1,760,564
2036	73	-126,654	0.79963	-101,276	-1,861,840
2037	74	-127,921	0.78976	-101,027	-1,962,867
2038	75	-129,200	0.78001	-100,777	-2,063,644
2039	76	-130,492	0.77038	-100,528	-2,164,172
2040	77	-131,797	0.76087	-100,280	-2,264,452
2041	78	-133,115	0.75147	-100,032	-2,364,484
2042	79	-37,203	0.74888	-27,861	-\$2,392,345
		•			

-\$2,392,345

Table 8

PRESENT VALUE OF FUTURE WAGE AND BENEFIT LOSS
2019 - 2042

			EMPLOYEE	PERSONAL		
YEAR	AGE	WAGES	BENEFITS	CONSUMPTION	LATOT	CUMULATE
****		*****	*****	****	******	*****
2019	56	\$753,375	\$85,131	-\$105,623	\$732,883	\$732,883
2020	57	751,518	84,922	-105,362	731,078	1,463,961
2021	58	749,664	84,712	-105,103	729,273	2,193,234
2022	59	747,808	84,503	-104,842	727,469	2,920,703
2023	60	745,967	84,295	-104,584	725,678	3,646,381
2024	61	744,119	84,086	-104,325	723,880	4,370,261
2025	62	742,289	83,879	-104,069	722,099	5,092,360
2025	63	740,454	83,672	-103,811	720,315	5,812,675
2023	64	738,624	83,465	-103,555	718,534	6,531,209
2027	65	736,800	83,258	-103,299	716,759	7,247,968
2029	66	734,984	83,053	-103,045	714,992	7,962,960
2020	67	733,168	82,848	-102,790	713,226	8,676,186
2030	68	731,354	82,643	-102,536	711,461	9,387,647
2032	69	729,552	82,439	-102,283	709,708	10,097,355
2032	70	727,746	82,235	-102,030	707,951	10,805,306
2034	71	725,955	82,033	-101,779	706,209	11,511,515
2035	72	724,163	81,830	-101,528	704,465	12,215,980
2036	73	722,371	81,628	-101,276	702,723	12,918,703
2037	74	720,589	81,427	-101,027	700,989	13,619,692
2038	75	718,810	81,226	-100,777	699,259	14,318,951
2039	76	717,034	81,025	-100,528	697,531	15,016,482
2040	77	715,265	80,825	-100,280	695,810	15,712,292
2041	78	713,493	80,624	-100,032	694,085	16,406,377
2042	79	198,719	22,455	-27,861	193,313	\$16,599,690
JOHN	CASAZZA	\$17,063,821	\$1,928,214	-\$2,392,345	\$16,599,690	

Table 9

PRESENT VALUE OF NET WAGE AND BENEFIT LOSS
2001 - 2042

			EMPLOYEE	PERSONAL		
YEAR	AGE	WAGES	BENEFITS	CONSUMPTION	TOTAL	CUMULATE
***	*** *	*****	*****	*****	****	*****
2001	38	\$143,600	\$16,227	-\$16,141	\$143,686	\$143,686
2002	39	482,061	54,473	-54,184	482,350	626,036
2003	40	507,506	57,348	-57,044	507,810	1,133,846
2004	41	529,841	59,872	-59,554	530,159	1,664,005
2005	42	545,919	61,689	-61,361	546,247	2,210,252
2006	43	567,223	64,096	-63,756	567,563	2,777,815
2007	44	590,061	66,677	-66,323	590,415	3,368,230
2008	45	607,576	68,656	-68,292	607,940	3,976,170
2009	46	614,961	69,491	-69,122	615,330	4,591,500
2010	47	622,497	70,342	-69,969	622,870	5,214,370
2011	48	625,589	70,692	-70,316	625,965	5,840,335
2012	49	662,480	74,860	-74,463	662,877	6,503,212
2013	50	662,480	74,860	-92,880	644,460	7,147,672
2014	51	680,565	76,904	-95,415	662,054	7,809,726
2015	52	701,517	79,271	-98,353	682,435	8,492,161
2016	53	701,517	79,271	-98,353	682,435	9,174,596
2017	54	719,008	81,248	-100,805	699,451	9,874,047
2018	55	740,578	83,685	-103,829	720,434	10,594,481
2019	56	753,375	85,131	-105,623	732,883	11,327,364
2020	57	751,518	84,922	-105,362	731,078	12,058,442
2021	58	749,664	84,712	-105,103	729,273	12,787,715
2022	59	747,808	84,503	-104,842	727,469	13,515,184
2023	60	745,967	84,295	-104,584	725,678	14,240,862
2024	61	744,119	84,086	-104,325	723,880	14,964,742
2025	62	742,289	83,879	-104,069	722,099	15,686,841
2026	63	740,454	83,672	-103,811	720,315	16,407,156
2027	64	738,624	83,465	-103,555	718,534	17,125,690
2028	65	736,800	83,258	-103,299	716,759	17,842,449
2029	66	734,984	83,053	-103,045	714,992	18,557,441
2030	67	733,168	82,848	-102,790	713,226	19,270,667
2031	68	731,354	82,643	-102,536	711,461	19,982,128
2032	69	729,552	82,439	-102,283	709,708	20,691,836
2033	70	727,746	82,235	-102,030	707,951	21,399,787
2034	71	725,955	82,033	-101,779	706,209	22,105,996
2035	72	724,163	81,830	-101,528	704,465	22,810,461
2036	73	722,371	81,628	-101,276	702,723	23,513,184
2037	74	720,589	81,427	-101,027	700,989	24,214,173
2038	75	718,810	81,226	-100,777	699,259	24,913,432
2039	76	717,034	81,025	-100,528	697,531	25,610,963
2040	7 7	715,265	80,825	-100,280	695,810	26,306,773
2041	78	713,493	80,624	-100,032	694,085	27,000,858
2042	79	198,719	22,455	-27,861	193,313	\$27,194,171
JOHN	CASAZZA	\$27,768,800	\$3,137,876	-\$3,712,505	\$27,194,171	•

JOHN CASAZZA \$27,768,800 \$3,137,876 -\$3,712,505 \$27,194,171

Table 10

LOSS OF PAST HOUSEHOLD SERVICES
2001 - 2018

		HOUSEHOLD	
YEAR	AGE	SERVICES	CUMULATE
***	***	*****	*****
2001	38	\$3,277	\$3,277
2002	39	11,000	14,277
2003	40	11,581	25,858
2004	41	12,091	37,949
2005	42	12,458	50,407
2006	43	12,944	63,351
2007	44	13,465	76,816
2008	45	13,865	90,681
2009	46	14,033	104,714
2010	47	14,205	118,919
2011	48	14,276	133,195
2012	49	15,117	148,312
2013	50	16,118	164,430
2014	51	16,558	180,988
2015	52	17,068	198,056
2016	53	17,068	215,124
2017	54	17,494	232,618
2018	55	18,018	\$250,636

JOHN CASAZZA \$250,636

Table 11

PRESENT VALUE OF FUTURE HOUSEHOLD SERVICES
2019 - 2042

		HOUSEHOLD	DISCOUNT	PRESENT	
YEAR	AGE	SERVICES	FACTOR	VALUE	CUMULATE
****	***	*****	*****	*****	*****
2019	56	\$18,559	0.98765	\$18,330	\$18,330
2020	57	18,745	0.97546	18,285	36,615
2021	58	18,932	0.96342	18,239	54,854
2022	59	19,121	0.95152	18,194	73,048
2023	60	19,312	0.93978	18,149	91,197
2024	61	19,505	0.92817	18,104	109,301
2025	62	19,700	0.91672	18,059	127,360
2026	63	19,897	0.90540	18,015	145,375
2027	64	20,096	0.89422	17,970	163,345
2028	65	20,297	0.88318	17,926	181,271
2029	66	20,500	0.87228	17,882	199,153
2030	67	20,705	0.86151	17,838	216,991
2031	68	4,251	0.85087	3,617	220,608
2032	69	4,251	0.84037	3,572	224,180
2033	70	4,251	0.82999	3,528	227,708
2034	71	4,251	0.81975	3,485	231,193
2035	72	4,251	0.80963	3,442	234,635
2036	73	4,251	0.79963	3,399	238,034
2037	74	4,251	0.78976	3,357	241,391
2038	75	4,251	0.78001	3,316	244,707
2039	76	30,739	0.77038	23,681	268,388
2040	77	31,046	0.76087	23,622	292,010
2041	78	31,356	0.75147	23,563	315,573
2042	79	8,763	0.74888	6,562	\$322,135

\$322,135

Table 12

PRESENT VALUE OF NET HOUSEHOLD SERVICES LOSS
2001 - 2042

		HOUSEHOLD	′
YEAR	AGE	SERVICES	CUMULATE
****	***	******	*****
2001	38	\$3,277	\$3,277
2002	39	11,000	14,277
2003	40	11,581	25,858
2004	41	12,091	37,949
2005	42	12,458	50,407
2006	43	12,944	63,351
2007	44	13,465	76,816
2008	45	13,865	90,681
2009	46	14,033	104,714
2010	47	14,205	118,919
2011	48	14,276	133,195
2012	49	15,117	148,312
2013	50	16,118	164,430
2014	51	16,558	180,988
2015	52	17,068	198,056
2016	53	17,068	215,124
2017	54	17,494	232,618
2018	55	18,018	250,636
2019	56	18,330	268,966
2020	57	18,285	287,251
2021	58	18,239	305,490
2022	59	18,194	323,684
2023	60	18,149	341,833
2024	61	18,104	359,937
2025	62	18,059	377,996
2026	63	18,015	396,011
2027	64	17,970	413,981
2028	65	17,926	431,907
2029	66	17,882	449,789
2030	67	17,838	467,627
2031	68	3,617	471,244
2032	69	3,572	474,816
2033	70	3,528	478,344
2034	71	3,485	481,829
2035	72	3,442	485,271
2036	73	3,399	488,670
2037	74	3,357	492,027
2038	75	3,316	495,343
2039	76	23,681	519,024
2040	77	23,622	542,646
2041	78	23,563	566,209
2042	79	6,562	\$572,771

JOHN CASAZZA \$572,771

Table 13

LOSS OF PAST GUIDANCE TO PATRICIA
2001 - 2018

YEAR	AGE	GUIDANCE	CUMULATE
***	***	*****	*****
2001	40	\$3,038	\$3,038
2002	41	10,200	13,238
2003	42	10,738	23,976
2004	43	11,211	35,187
2005	44	11,551	46,738
2006	45	12,002	58,740
2007	46	12,485	71,225
2008	47	12,855	84,080
2009	48	13,012	97,092
2010	49	13,171	110,263
2011	50	13,237	123,500
2012	51	14,017	137,517
2013	52	14,017	151,534
2014	53	14,400	165,934
2015	54	14,843	180,777
2016	55	14,843	195,620
2017	56	15,213	210,833
2018	57	15,670	\$226,503

CASAZZA \$226,503

Table 14

PRESENT VALUE OF FUTURE GUIDANCE TO PATRICIA
2019 - 2042

			DISCOUNT	PRESENT	
YEAR	AGE	GUIDANCE	FACTOR	VALUE	CUMULATE
***	***	*****	******	*****	*****
2019	58	\$16,140	0.98765	\$15,941	\$15,941
2020	59	16,301	0.97546	15,901	31,842
2021	60	16,464	0.96342	15,862	47,704
2022	61	16,629	0.95152	15,823	63,527
2023	62	16,795	0.93978	15,784	79,311
2024	63	16,963	0.92817	15,745	95,056
2025	64	17,133	0.91672	15,706	110,762
2026	65	17,304	0.90540	15,667	126,429
2027	66	17,477	0.89422	15,628	142,057
2028	67	17,652	0.88318	15,590	157,647
2029	68	17,829	0.87228	15,552	173,199
2030	69	18,007	0.86151	15,513	188,712
2031	70	18,187	0.85087	15,475	204,187
2032	71	18,369	0.84037	15,437	219,624
2033	72	18,553	0.82999	15,399	235,023
2034	73	18,739	0.81975	15,361	250,384
2035	74	18,926	0.80963	15,323	265,707
2036	75	19,115	0.79963	15,285	280,992
2037	76	19,306	0.78976	15,247	296,239
2038	77	19,499	0.78001	15,209	311,448
2039	78	19,694	0,77038	15,172	326,620
2040	79	19,891	0.76087	15,134	341,754
2041	80	20,090	0.75147	15,097	356,851
2042	81	5,615	0.74888	4,205	\$361,056

PATRICIA CASAZZA

\$361,056

Table 15

PRESENT VALUE OF NET GUIDANCE LOSS TO PATRICIA
2001 - 2042

YEAR	AGE	GUIDANCE	CUMULATE
****	***	*****	******
2001	40	\$3,038	\$3,038
2002	41	10,200	13,238
2003	42	10,738	23,976
2004	43	11,211	35,187
2005	44	11,551	46,738
2006	45	12,002	58,740
2007	46	12,485	71,225
2008	47	12,855	84,080
2009	48	13,012	97,092
2010	49	13,171	110,263
2011	50	13,237	123,500
2012	51	14,017	137,517
2013	52	14,017	151,534
2014	53	14,400	165,934
2015	54	14,843	180,777
2016	55	14,843	195,620
2017	56	15,213	210,833
2018	57	15,670	226,503
2019	58	15,941	242,444
2020	59	15,901	258,345
2021	60	15,862	274,207
2022	61	15,823	290,030
2023	62	15,784	305,814
2024	63	15,745	321,559
2025	64	15,706	337,265
2026	65	15,667	352,932
2027	66	15,628	368,560
2028	67	15,590	384,150
2029	68	15,552	399,702
2030	69	15,513	415,215
2031	70	15,475	430,690
2032	71	15,437	446,127
2033	72	15,399	461,526
2034	73	15,361	476,887
2035	74	15,323	492,210
2036	75	15,285	507,495
2037	76	15,247	522,742
2038	77	15,209	537,951
2039	78	15,172	553,123 569,257
2040	79	15,134	568,257
2041	80	15,097	583,354 \$587,559
2042	81	4,205	9907 ₁ 999

CASAZZA \$587,559

LOSS OF PAST GUIDANCE TO JOHN JR 2001 - 2018

Table 16

YEAR	AGE	GUIDANCE	CUMULATE
***	***	*******	******
2001	11	\$3,038	\$3,038
2002	12	10,200	13,238
2003	13	10,738	23,976
2004	14	11,211	35,187
2005	15	11,551	46,738
2006	16	12,002	58,740
2007	17	12,485	71,225
2008	18	12,855	84,080
2009	19	13,012	97,092
2010	20	13,171	110,263
2011	21	13,237	123,500
2012	22	14,017	137,517
2013	23	7,009	144,526
2014	24	7,200	151,726
2015	25	7,422	159,148
2016	26	7,422	166,570
2017	27	7,607	174,177
2018	28	7,835	\$182,012

Table 17

PRESENT VALUE OF FUTURE GUIDANCE TO JOHN JR
2019 - 2042

			DISCOUNT	PRESENT	
YEAR	AGE	GUIDANCE	FACTOR	VALUE	CUMULATE
***	***	*****	*****	*****	*****
2019	29	\$8,070	0.98765	\$7,97 0	\$7,970
2020	30	8,151	0.97546	7,951	15,921
2021	31	8,233	0.96342	7,932	23,853
2022	32	8,315	0.95152	7,912	31,765
2023	33	8,398	0.93978	7,892	39,657
2024	34	8 2 482	0,92817	7,873	47,530
2025	35	8.567	0.91672	7,854	55,384
2026	36	8,653	0.90540	7,834	63,218
2027	37	8,740	0.89422	7,815	71,033
2028	38	8,827	0.88318	7,796	78,829
2029	39	8,915	0.87228	7,776	86,605
2030	40	9,004	0.86151	7,757	94,362
2031	41	9,094	0.85087	7,738	102,100
2032	42	9 ₊ 185	0.84037	7,719	109,819
2033	43	9,277	0.82999	7,700	117,519
2034	44	9,,370	0.81975	7,681	125,200
2035	45	9,464	0.80963	7,662	132,862
2036	46	9,559	0.79963	7,644	140,506
2037	47	9,655	0.78976	7,625	148,131
2038	48	9,752	0.78001	7,607	155,738
2039	49	9,850	0.77038	7,588	163,326
2040	50	9,949	0.76087	7,570	170,896
2041	51	10,048	0.75147	7,551	178,447
2042	52	2,808	0.74888	2,103	\$180,550

JOHN CASAZZA, JR.

\$180,550

Table 18

PRESENT VALUE OF NET GUIDANCE LOSS TO JOHN JR
2001 - 2042

YEAR	AGE	GUIDANCE	CUMULATE
***	***	******	*****
2001	11	\$3,038	\$3,038
2002	12	10,200	13,238
2003	13	10,738	23,976
2004	14	11,211	35,187
2005	15	11,551	46,738
2006	16	12,002	58,740
2007	17	12,485	71,225
2008	18	12,855	84,080
2009	19	13,012	97,092
2010	20	13,171	110,263
2011	21	13,237	123,500
2012	22	14,017	137,517
2013	23	7,009	144,526
2014	24	7,200	151,726
2015	25	7,422	159,148
2016	26	7,422	166,570
2017	27	7,607	174,177
2018	28	7,835	182,012
2019	29	7,970	189,982
2020	30	7,951	197,933
2021	31	7,932	205,865
2022	32	7,912	213,777
2023	33	7,892	221,669
2024	34	7,873	229,542
2025	35	7,854	237,396
2026	36	7,834	245,230
2027	37	7,815	253,045
2028	38	7,796	260,841
2029	39	7,776	268,617
2030	40	7,757	276,374
2031	41	7,738	284,112
2032	42	7,719	291,831
2033	43	7,700	299,531
2034	44	7,681	307,212
2035	45	7,662	314,874
2036	46	7,644	322,518
2037	47	7,625	330,143
2038	48	7,607	337,750
2039	49	7,588	345,338
2040	50	7,570	352,908
2041	51	7,551	360,459
2042	52	2,103	\$362,562

SMITH ECONOMICS GROUP, LTD. 312/943-1551

CASAZZA \$362,562

LOSS OF PAST ACCOMPANIMENT TO PATRICIA 2001 - 2018

Table 19

YEAR	AGE	ACCOMPANIMENT	CUMULATE
****	***	*******	*****
2001	40	\$4,044	\$4,044
2002	41	13,574	17,618
2003	42	14,291	31,909
2004	43	14,920	46,829
2005	44	15,373	62,202
2006	45	15,972	78,174
2007	46	16,616	94,790
2008	47	17,109	111,899
2009	48	17,317	129,216
2010	49	17,529	146,745
2011	50	17,616	164,361
2012	51	18,655	183,016
2013	52	18,655	201,671
2014	53	19,164	220,835
2015	54	19,754	240,589
2016	55	19,754	260,343
2017	56	20,247	280,590
2018	57	20,854	\$301,444

Table 20

PRESENT VALUE OF FUTURE ACCOMPANIMENT TO PATRICIA
2019 - 2042

			DISCOUNT	PRESENT	
YEAR	AGE	ACCOMPANIMENT	FACTOR	VALUE	CUMULATE
****	***	******	******	*****	*****
2019	58	\$21,480	0.98765	\$21,215	\$21,215
2020	59	21,695	0.97546	21,163	42,378
2021	60	21,912	0.96342	21,110	63,488
2022	61	22,131	0.95152	21,058	84,546
2023	62	22,352	0.93978	21,006	105,552
2024	63	22,576	0.92817	20,954	126,506
2025	64	22,802	0.91672	20,903	147,409
2026	65	23,030	0.90540	20,851	168,260
2027	66	23,260	0.89422	20,800	189,060
2028	67	23,493	0.88318	20,749	209,809
2029	68	23,728	0.87228	20,697	230,506
2030	69	23,965	0.86151	20,646	251,152
2031	70	24,205	0.85087	20,595	271,747
2032	71	24,447	0.84037	20,545	292,292
2033	72	24,691	0.82999	20,493	312,785
2034	73	24,938	0.81975	20,443	333,228
2035	74	25,187	0.80963	20,392	353,620
2036	75	25,439	0.79963	20,342	373,962
2037	76	25,693	0.78976	20,291	394,253
2038	77	25,950	0.78001	20,241	414,494
2039	78	26,210	0.77038	20,192	434,686
2040	79	26,472	0.76087	20,142	454,828
2041	80	26,737	0.75147	20,092	474,920
2042	81	7,472	0.74888	5,596	\$480,516

PATRICIA CASAZZA

\$480,516

Table 21

PRESENT VALUE OF NET ACCOMPANIMENT LOSS TO PATRICIA
2001 - 2042

YEAR	AGE	ACCOMPANIMENT	CUMULATE
****	***	*****	*****
2001	40	\$4,044	\$4,044
2002	41	13,574	17,618
2003	42	14,291	31,909
2004	43	14,920	46,829
2005	44	15,373	62,202
2006	45	15,972	78,174
2007	46	16,616	94,790
2008	47	17,109	111,899
2009	48	17,317	129,216
2010	49	17,529	146,745
2011	50	17,616	164,361
2012	51	18,655	183,016
2013	52	18,655	201,671
2014	53	19,164	220,835
2015	54	19,754	240,589
2016	55	19,754	260,343
2017	56	20,247	280,590
2018	57	20,854	301,444
2019	58	21,215	322,659
2020	59	21,163	343,822
2021	60	21,110	364,932
2022	61	21,058	385,990
2023	62	21,006	406,996
2024	63	20,954	427,950
2025	64	20,903	448,853
2026	65	20,851	469,704
2027	66	20,800	490,504
2028	67	20,749	511,253
2029	68	20,697	531,950
2030	69	20,646	552,596
2031	70	20,595	573,191
2032	71	20,545	593,736
2033	72	20,493	614,229
2034	73	20,443	634,672
2035	74	20,392	655,064
2036	75	20,342	675,406
2037	76 	20,291	695,697
2038	77	20,241	715,938
2039	78	20,192	736,130
2040	79	20,142	756,272
2041	80	20,092	776,364
2042	81	5,596	\$781,960

CASAZZA \$781,960

Table 22

LOSS OF PAST ACCOMPANIMENT TO JOHN JR
2001 - 2018

YEAR	AGE	ACCOMPANIMENT	CUMULATE
****	***	********	*****
2001	11	\$2,696	\$2,696
2002	12	9,050	11,746
2003	13	9,527	21,273
2004	14	9,947	31,220
2005	15	10,248	41,468
2006	16	10,648	52,116
2007	17	11,077	63,193
2008	18	11,406	74,599
2009	19	11,544	86,143
2010	20	11,686	97,829
2011	21	11,744	109,573
2012	22	12,437	122,010
2013	23	6,218	128,228
2014	24	6,388	134,616
2015	25	6,585	141,201
2016	26	6,585	147,786
2017	27	6,749	154,535
2018	28	6,951	\$161,486

Table 23

PRESENT VALUE OF FUTURE ACCOMPANIMENT TO JOHN JR
2019 - 2042

			DISCOUNT	PRESENT	
YEAR	AGE	ACCOMPANIMENT	FACTOR	VALUE	CUMULATE
****	***	******	******	*****	*****
2019	29	\$7,160	0.98765	\$7,072	\$7,072
2020	30	7,232	0.97546	7,055	14,127
2021	31	7,304	0.96342	7,037	21,164
2022	32	7,377	0.95152	7,019	28,183
2023	33	7,451	0.93978	7,002	35,185
2024	34	7,526	0.92817	6,985	42,170
2025	35	7,601	0.91672	6,968	49,138
2026	36	7,677	0.90540	6,951	56,089
2027	37	7,754	0.89422	6,934	63,023
2028	38	7,832	0.88318	6,917	69,940
2029	39	7,910	0.87228	6,900	76,840
2030	40	7,989	0.86151	6,883	83,723
2031	41	8,069	0.85087	6 _£ 866	90,589
2032	42	8,150	0.84037	6,849	97,438
2033	43	8,232	0.82999	6,832	104,270
2034	44	8,314	0.81975	6,815	111,085
2035	45	8,397	0.80963	6 ₂ 798	117,883
2036	46	8,481	0.79963	6,782	124,665
2037	47	8,566	0.78976	6,765	131,430
2038	48	8,652	0.78001	6,749	138,179
2039	49	8,739	0.77038	6 732	144,911
2040	50	8,826	0.76087	6,715	151,626
2041	51	8,914	0.75147	6,699	158,325
2042	52	2,491	0.74888	1,865	\$160,190

JOHN CASAZZA, JR.

\$160,190

Table 24

PRESENT VALUE OF NET ACCOMPANIMENT LOSS TO JOHN JR
2001 - 2042

YEAR	AGE	ACCOMPANIMENT	CUMULATE
***	***	*****	*****
2001	11	\$2,696	\$2,696
2002	12	9,050	11,746
2003	13	9,527	21,273
2004	14	9,947	31,220
2005	15	10,248	41,468
2006	16	10,648	52,116
2007	17	11,077	63,193
2008	18	11,406	74,599
2009	19	11,544	86,143
2010	20	11,686	97,829
2011	21	11,744	109,573
2012	22	12,437	122,010
2013	23	6,218	128,228
2014	24	6,388	134,616
2015	25	6,585	141,201
2016	26	6,585	147,786
2017	27	6,749	154,535
2018	28	6,951	161,486
2019	29	7,072	168,558
2020	30	7,055	175,613
2021	31	7,037	182,650
2022	32	7,019	189,669
2023	33	7,002	196,671
2024	34	6,985	203,656
2025	35	6,968	210,624
2026	36	6,951	217,575
2027	37	6,934	224,509
2028	38	6,917	231,426
2029	39	6,900	238,326
2030	40	6,883	245,209
2031	41	6,866	252,075
2032	42	6,849	258,924
2033	43	6,832	265,756
2034	44	6,815	272,571
2035	45	6,798	279,369
2036	46	6,782	286,151 292,916
2037	47	6,765 6.749	292,916
2038	48	6,749 6,732	306,397
2039	49	•	-
2040	50 51	6,715 6,699	313,112 319,811
2041 2042	51 52	1,865	\$321,676
2042	24	1,000	7521,070

CASAZZA \$321,676

Table 25

LOSS OF PAST LVL OF JOHN 2001 - 2018

YEAR	AGE	LVL	CUMULATE
****	***	******	******
2001	38	\$29,936	\$29,936
2002	39	100,782	130,718
2003	40	102,677	233,395
2004	41	106,024	339,419
2005	42	109,650	449,069
2006	43	112,436	561,505
2007	44	117,023	678,528
2008	45	117,128	795,656
2009	46	120,314	915,970
2010	47	122,119	1,038,089
2011	48	125,734	1,163,823
2012	49	127,921	1,291,744
2013	50	129,840	1,421,584
2014	51	130,827	1,552,411
2015	52	131,782	1,684,193
2016	53	134,510	1,818,703
2017	54	137,348	1,956,051
2018	55	140,095	\$2,096,146

JOHN CASAZZA \$2,096,146

Table 26

PRESENT VALUE OF FUTURE LVL OF JOHN
2019 - 2042

			DISCOUNT	PRESENT	
YEAR	AGE	LVL	FACTOR	VALUE	CUMULATE
****	***	*****	*****	******	******
2019	56	\$142,897	0.98765	\$141,132	\$141,132
2020	57	142,897	0.97546	139,390	280,522
2021	58	142,897	0.96342	137,670	418,192
2022	59	142,897	0.95152	135,969	554,161
2023	60	142,897	0.93978	134,292	688,453
2024	61	142,897	0.92817	132,633	821,086
2025	62	142,897	0.91672	130,997	952,083
2026	63	142,897	0.90540	129,379	1,081,462
2027	64	142,897	0.89422	127,781	1,209,243
2028	65	142,897	0.88318	126,204	1,335,447
2029	66	142,897	0.87228	124,646	1,460,093
2030	67	142,897	0.86151	123,107	1,583,200
2031	68	142,897	0.85087	121,587	1,704,787
2032	69	142,897	0.84037	120,086	1,824,873
2033	70	142,897	0.82999	118,603	1,943,476
2034	71	142,897	0.81975	117,140	2,060,616
2035	72	142,897	0.80963	115,694	2,176,310
2036	73	142,897	0.79963	114,265	2,290,575
2037	74	142,897	0.78976	112,854	2,403,429
2038	75	142,897	0.78001	111,461	2,514,890
2039	76	142,897	0.77038	110,085	2,624,975
2040	77	142,897	0.76087	108,726	2,733,701
2041	78	142,897	0.75147	107,383	2,841,084
2042	79	39,541	0.74888	29,611	\$2,870,695

JOHN CASAZZA

\$2,870,695

Table 27

PRESENT VALUE OF NET LVL OF JOHN
2001 - 2042

YEAR	AGE	LVL	CUMULATE
***	***	*****	******
2001	38	\$29,936	\$29,936
2002	39	100,782	130,718
2003	40	102,677	233,395
2004	41	106,024	339,419
2005	42	109,650	449,069
2006	4,3	112,436	561,505
2007	44	117,023	678,528
2008	45	117,128	795,656
2009	46	120,314	915,970
2010	47	122,119	1,038,089
2011	48	125,734	1,163,823
2012	49	127,921	1,291,744
2013	50	129,840	1,421,584
2014	51	130,827	1,552,411
2015	52	131,782	1,684,193
2016	53	134,510	1,818,703
2017	54	137,348	1,956,051
2018	55	140,095	2,096,146
2019	56	141,132	2,237,278
2020	57	139,390	2,376,668
2021	58	137,670	2,514,338
2022	59	135,969	2,650,307
2023	60	134,292	2,784,599
2024	61	132,633	2,917,232
2025	62	130,997	3,048,229
2026	63	129,379	3,177,608
2027	64	127,781	3,305,389
2028	65	126,204	3,431,593
2029	66	124,646	3,556,239
2030	67	123,107	3,679,346
2031	68	121,587	3,800,933
2032	69	120,086	3,921,019
2033	70	118,603	4,039,622
2034	71	117,140	4,156,762
2035	72	115,694	4,272,456
2036	73	114,265	4,386,721
2037	74	112,854	4,499,575
2038	75	111,461	4,611,036
2039	76	110,085	4,721,121
2040	77	108,726	4,829,847
2041	78	107,383	4,937,230
2042	79	29,611	\$4,966,841

JOHN CASAZZA \$4,966,841

Table 28

LOSS OF PAST RELATIONSHIP TO PATRICIA
2001 - 2018

YEAR	AGE	RELATIONSHIP	CUMULATE
****	***	********	******
2001	40	\$10,478	\$10,478
2002	41	35,274	45,752
2003	42	35,937	81,689
2004	43	37,109	118,798
2005	44	38,378	157,176
2006	45	39,352	196,528
2007	46	40,958	237,486
2008	47	40,995	278,481
2009	48	42,110	320,591
2010	49	42,742	363,333
2011	50	44,007	407,340
2012	51	44,772	452,112
2013	52	45,444	497,556
2014	53	45,789	543,345
2015	54	46,124	589,469
2016	55	47,078	636,547
2017	56	48,072	684,619
2018	57	49,033	\$733,652

Table 29

PRESENT VALUE OF FUTURE RELATIONSHIP TO PATRICIA
2019 - 2045

			DISCOUNT	PRESENT	
YEAR	AGE	RELATIONSHIP	FACTOR	VALUE	CUMULATE
***	***	*****	*****	******	*******
2019	58	\$50,014	0.98765	\$49,396	\$49,396
2020	59	50,014	0.97546	48,787	98,183
2021	60	50,014	0.96342	48,184	146,367
2022	61	50,014	0.95152	47,589	193,956
2023	62	50,014	0.93978	47,002	240,958
2024	63	50,014	0.92817	46,421	287,379
2025	64	50,014	0.91672	45,849	333,228
2026	65	50,014	0.90540	45,283	378,511
2027	66	50,014	0.89422	44,724	423,235
2028	67	50,014	0.88318	44,171	467,406
2029	68	50,014	0.87228	43,626	511,032
2030	69	50,014	0.86151	43,088	554,120
2031	70	50,014	0.85087	42,555	596,675
2032	71	50,014	0.84037	42,030	638,705
2033	72	50,014	0.82999	41,511	680,216
2034	73	50,014	0.81975	40,999	721,215
2035	74	50,014	0.80963	40,493	761,708
2036	75	50,014	0.79963	39,993	801,701
2037	76	50,014	0.78976	39,499	841,200
2038	77	50,014	0.78001	39,011	880,211
2039	78	50,014	0.77038	38,530	918,741
2040	79	50,014	0.76087	38,054	956,795
2041	80	50,014	0.75147	37,584	994,379
2042	81	50,014	0.74220	37,120	1,031,499
2043	82	50,014	0.73303	36,662	1,068,161
2044	83	50,014	0.72398	36,209	1,104,370
2045	84	26,172	0.71928	18,825	\$1,123,195

PATRICIA CASAZZA

\$1,123,195

Table 30

PRESENT VALUE OF NET RELATIONSHIP LOSS TO PATRICIA
2001 - 2045

YEAR	AGE	RELATIONSHIP	CUMULATE
****	***	*****	
2001	40	\$10,478	\$10,478
2002	41	35,274	45,752
2003	42	35,937	81,689
2004	43	37,109	118,798
2005	44	38,378	157,176
2006	45	39,352	196,528
2007	46	40,958	237,486
2008	47	40,995	278,481
2009	48	42,110	320,591
2010	49	42,742	363,333
2011	50	44,007	407,340
2012	51	44,772	452,112
2013	52	45,444	497,556
2014	53	45,789	543,345
2015	54	46,124	589,469
2016	55	47,078	636,547
2017	56	48,072	684,619
2018	57	49,033	733,652
2019	58	49,396	783,048
2020	59	48,787	831,835
2021	60	48,184	880,019
2022	61	47,589	927,608
2023	62	47,002	974,610
2024	63	46,421	1,021,031
2025	64	45,849	1,066,880
2026	65	45,283	1,112,163
2027	66	44,724	1,156,887
2028	67	44,171	1,201,058
2029	68	43,626	1,244,684
2030	69	43,088	1,287,772
2031	70	42,555	1,330,327
2032	71	42,030	1,372,357
2033	72	41,511	1,413,868
2034	73	40,999	1,454,867
2035	74	40,493	1,495,360
2036	75	39,993	1,535,353
2037	76	39,499	1,574,852
2038	77	39,011	1,613,863
2039	78	38,530	1,652,393
2040	79	38,054	1,690,447
2041	80	37,584	1,728,031 1,765,151
2042	81	37,120	
2043	82	36,662	1,801,813
2044	83	36,209 18,825	1,838,022 \$1,856,847
2045	84	10,023	71,000,047

CASAZZA \$1,856,847

Table 31

LOSS OF PAST RELATIONSHIP TO JOHN JR
2001 - 2018

YEAR ****	AGE	RELATIONSHIP	CUMULATE
2001	11	\$5,987	\$5,987
2002	12	20,156	26,143
2003	13	20,535	46,678
2004	14	21,205	67,883
2005	15	21,930	89,813
2006	16	22,487	112,300
2007	17	23,405	135,705
2008	18	23,426	159,131
2009	19	24,036	183,167
2010	20	24,424	207,591
2011	21	25,147	232,738
2012	22	25,584	258,322
2013	23	25,968	284,290
2014	24	26,165	310,455
2015	25	26,356	336,811
2016	26	26,902	363,713
2017	27	27,470	391,183
2018	28	28,019	\$419,202
CASAZ	ZA	\$419,202	

Table 32

PRESENT VALUE OF FUTURE RELATIONSHIP TO JOHN JR
2019 - 2068

			DISCOUNT	PRESENT	
YEAR	AGE	RELATIONSHIP	FACTOR	VALUE	CUMULATE
****	***	******	*****	*******	*****
2019	29	\$28,579	0.98765	\$28,226	\$28,226
2020	30	28,579	0.97546	27,878	56,104
2021	31	28,579	0.96342	27,534	83,638
2022	32	28,579	0.95152	27,193	110,831
2023	33	28,579	0.93978	26,858	137,689
2024	34	28,579	0.92817	26,526	164,215
2025	35	28,579	0.91672	26,199	190,414
2026	36	28,579	0.90540	25,875	216,289
2027	37	28,579	0.89422	25,556	241,845
2028	38	28,579	0.88318	25,240	267,085
2029	39	28,579	0.87228	24,929	292,014
2030	40	28,579	0.86151	24,621	316,635
2031	41	28,579	0.85087	24,317	340,952
2032	42	28,579	0.84037	24,017	364,969
2033	43	28,579	0.82999	23,720	388,689
2034	44	28,579	0.81975	23,428	412,117
2035	45	28,579	0.80963	23,138	435,255
2036	46	28,579	0.79963	22,853	458,108
2037	47	28,579	0.78976	22,571	480,679
2038	48	28,579	0.78001	22,292	502,971
2039	49	28,579	0.77038	22,017	524,988
2040	50	28,579	0.76087	21,745	546,733
2041	51	28,579	0.75147	21,476	568,209
2042	52	28,579	0.74220	21,211	589,420
2043	53	28,579	0.73303	20,949	610,369
2044	54	28,579	0.72398	20,691	631,060
2045	55	28,579	0.71505	20,435	651,495
2046	56	28,579	0.70622	20,183	671,678
2047	57	28,579	0.69750	19,934	691,612
2048	58	28,579	0.68889	19,688	711,300
2049	59	28,579	0.68038	19,445	730,745
2050	60	28,579	0.67198	19,205	749,950
2051	61	28,579	0.66369	18,968	768,918
2052	62	28,579	0.65549	18,733	787,651
2053	63	28,579	0.64740	18,502	806,153
2054	64	28,579	0.63941	18,274	824,427
2055	65	28,579	0.63152	18,048	842,475
2056	66	28,579	0.62372	17,825	860,300
2057	67	28,579	0.61602	17,605	877,905
2058	68	28,579	0.60841	17,388	895,293
2059	69	28,579	0.60090	17,173	912,466
2060	70	28,579	0.59348	16,961	929,427
2061	71	28,579	0.58616	16,752	946,179
2061	72	28,579	0.57892	16,545	962,724
2062	72	28,579	0.57072	16,341	979,065
2064	74	28,579	0.56471	16,139	995,204
2065	75	28,579	0.55774	15,940	1,011,144
2066	76	28,579	0.55086	15,743	1,026,887
2067	77	28,579	0.54406	15,549	1,042,436
2068	78	15,816	0.54032	8,546	\$1,050,982
				-,,	, ,,

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Table 32 (Cont.)

PRESENT VALUE OF FUTURE RELATIONSHIP TO JOHN JR 2019 - 2068

JOHN CASAZZA, JR.

\$1,050,982

Table 33

PRESENT VALUE OF NET RELATIONSHIP LOSS TO JOHN JR
2001 - 2068

YEAR	AGE	RELATIONSHIP	CUMULATE
****	***	******	*****
2001	11	\$5,987	\$5,987
2002	12	20,156	26,143
2003	13	20,535	46,678
2004	14	21,205	67,883
2005	15	21,930	89,813
2006	16	22,487	112,300
2007	17	23,405	135,705
2008	18	23,426	159,131
2009	19	24,036	183,167
2010	20	24,424	207,591
2011	21	25,147	232,738
2012	22	25,584	258,322
2013	23	25,968	284,290
2014	24	26,165	310,455
2015	25	26,356	•
2016	26		336,811
2017	27	26,902	363,713
2017	28	27,470 28,019	391,183
2019	29		419,202
2020	30	28,226	447,428
2021	31	27,878 27,534	475,306
2021	32		502,840
2022	33	27,193	530,033
2023		26,858 26,526	556,891
	34	26,526 26,199	583,417
2025 2026	35 36	26,199	609,616
	36	25,875	635,491
2027	37	25,556	661,047
2028 2029	38 39	25,240	686,287
2029	40	24,929	711,216
2030	41	24,621	735,837
2031	42	24,317	760,154
2032	43	24,017 23,720	784,171
2033			807,891
2034	44 45	23,428	831,319
2036		23,138 22,853	854,457
	46	•	877,310
2037	47 48	22,571	899,881
2038 2039	49	22,292	922,173
2040	50	22,017	944,190
2040	51	21,745	965,935
2041	51 52	21,476	987,411
2042	53	21,211 20,949	1,008,622
			1,029,571
2044 2045	54 55	20,691	1,050,262
	55 56	20,435	1,070,697
2046	56	20,183	1,090,880
2047	57 58	19,934	1,110,814
2048		19,688	1,130,502
2049	59 60	19,445	1,149,947
2050	60	19,205	1,169,152

Table 33 (Cont.)

PRESENT VALUE OF NET RELATIONSHIP LOSS TO JOHN JR 2001 - 2068

YEAR	AGE	RELATIONSHIP	CUMULATE
****	***	*******	*****
2051	61	18,968	1,188,120
2052	62	18,733	1,206,853
2053	63	18,502	1,225,355
2054	64	18,274	1,243,629
2055	65	18,048	1,261,677
2056	66	17,825	1,279,502
2057	67	17,605	1,297,107
2058	68	17,388	1,314,495
2059	69	17,173	1,331,668
2060	70	16,961	1,348,629
2061	71	16,752	1,365,381
2062	72	16,545	1,381,926
2063	73	16,341	1,398,267
2064	74	16,139	1,414,406
2065	75	15,940	1,430,346
2066	76	15,743	1,446,089
2067	77	15,549	1,461,638
2068	78	8,546	\$1,470,184

CASAZZA \$1,470,184